IT Unit 3

Topic 2

# Ch 2, Data Analytics: Drawing Conclusions, Part 1

**What is data?, p 73**

1. Describe the nature of data.

* Data is made up of facts and statistics, raw facts have no context to them, so you cannot make much sense of them, or give them any meaning. To understand and make meaning of data you need to process it into information. We need data to produce information, but without processing it into information it means nothing.

**What is a hypothesis?**

1. Describe what a hypothesis is.

* It’s an educated guess or prediction that you can test in a scientific way.

1. What are the characteristics of a reasonable hypothesis?

* It needs to be testable, have two variables; independent and dependent, should be specific and is a statement, not a question.

1. Can a hypothesis be proven? Distinguish between proof, support and refutation.

* No a hypothesis cannot be proven only supported or refuted. A hypothesis can never be proven to be impossible because there have been many instances where hypothesis’ have been declared impossible but now have become reality. So supporting something, in this case a hypothesis, means to accept or agree with while including statistics and refuting it is the opposite.